

REMARKS

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

Several methods for milling boron nitride, in particular, hexagonal boron nitride ("h-BN") are known in the art. One conventional process for milling h-BN is disclosed in Hagio et al., J. Am. Cer. Soc. 72:1482-84 (1989) ("Hagio"). According to Hagio, a virgin h-BN powder (characterized by a particle size of about 10 μm , a surface area of about 5 m^2/g , and a thickness of about 100 nm) is milled by grinding with tungsten carbide mortar (WC) in air. The apparent purpose of Hagio's milling operation is to increase the surface area of the h-BN powder, thereby increasing its reactivity. When milled in this manner for 24 hours, the resultant h-BN powder has a lower particle diameter (2 μm), a higher surface area (54 m^2/g), and is slightly thinner (71 nm). The data reported by Hagio suggests that the final geometry of the milled powder is not dependent upon the starting powder purity. Although Hagio reports a reduction in the platelet thickness, Hagio's milling operation primarily results in BN particle fracture, thereby reducing the particle diameter, resulting in an increased surface area.

In U.S. Patent No. 5,063,184 to Tsuyoshi et al. ("Tsuyoshi"), it is reported that high surface area, highly reactive h-BN powders are useful in providing high density, pressureless sintered h-BN components. In each example in Tsuyoshi, the virgin h-BN is milled in either air or nitrogen.

The present invention is directed towards providing an improved milling method for producing h-BN powders.


The rejection of claims 28-50 under 35 U.S.C. § 112 (first paragraph) for failure to satisfy the written description requirement is respectfully traversed. The basis for this rejection is that the specification allegedly fails to adequately define the "polymer process aid" limitation. Since amended claims 28-38 do not even contain this phrase, there is no basis to reject them. As to claims 39-50, the claimed polymer processing aid is described in the paragraph bridging pages 10 and 11 of the present application. It is thus amply clear what the claimed polymer processing aid is from the written description of the present application. Accordingly, the rejection under 35 U.S.C. § 112 (first paragraph) should be withdrawn.

The rejection of claims 28-50 under 35 U.S.C. § 112 (second paragraph) for indefiniteness is respectfully traversed. The rationale for this rejection is that the claimed "polymer process aid" is described in the present application as a component in a composition containing hexagonal boron nitride. Again, since the above limitation is not found in amended claims 28-38, this rejection should be withdrawn with respect to those claims. As to claims 39-50, it is submitted that this rejection has been obviated by the above amendments. Support for the amendments to claims 36-37 and 47-48 is found in the specification at page 4, lines 21-22 and page 4, lines 27-28.

In view of all the foregoing, it is submitted that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

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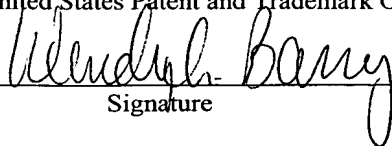
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